



PTO/SB/08A (08-03)

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| Substitute for form 1449/PTO  |                        | <b>Complete if Known</b> |                  |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>(Use as many sheets as necessary) |                        | Application Number       | 09/682,249       |
|   |                        | Filing Date              | 08/09/2001       |
|   |                        | First Named Inventor     | GRUNE, GUERRY L. |
|   |                        | Art Unit                 | 1616             |
|   |                        | Examiner Name            | Marina Lamm      |
| Sheet 1 of 3  | Attorney Docket Number | D1 SNBLK D1              |                  |

| U. S. PATENT DOCUMENTS |                       |  |                                |  |   |
|------------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials*     | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                        |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| Ull                    | 1                     | US- 5,824,659 B1                         | 10-20-1998                     | Univ. Of Texas                                     | All   |
|                        | 2                     | US- 5,028,417 B1                         | 07-02-1991                     | Johnson & Johnson                                  | All   |
|                        | 3                     | US- 5,340,567 B1                         | 08-23-1994                     | Johnson & Johnson                                  | All   |
|                        | 4                     | US- 5,188,831 B1                         | 02-23-1993                     | Cheesebrough-Pond's                                | All   |
|                        | 5                     | US- 5,498,406 B1                         | 03-12-1996                     | Malcom Neam  | All   |
|                        | 6                     | US- 6,099,825 B1                         | 08-08-2000                     | Schering-Plough                                    | All   |
|                        | 7                     | US- 6,042,813 B1                         | 03-28-2000                     | Schering-Plough                                    | All   |
|                        | 8                     | US- 6,048,517 B1                         | 04-11-2000                     | Schering-Plough                                    | All   |
|                        | 9                     | US- 5,770,183 B1                         | 06-23-1998                     | Francisco J. Linares                               | All   |
|                        | 10                    | US- 5,492,690 B1                         | 02-20-1996                     | Procter & Gamble                                   | All   |
|                        | 11                    | US- 5,747,010 B1                         | 05-05-1998                     | Johnson & Johnson                                  | All   |
|                        | 12                    | US- 5,914,102 B1                         | 06-22-1999                     | Schering-Plough                                    | All   |
|                        | 13                    | US- 5,916,542 B1                         | 06-29-1999                     | Antonio Fossati                                    | All   |
|                        | 14                    | US- 5,945,090 B1                         | 08-31-1999                     | Randall Products Int                               | All   |
|                        | 15                    | US- 5,980,871 B1                         | 11-09-1999                     | Johnson & Johnson                                  | All   |
|                        | 16                    | US- 5,547,659 B1                         | 08-20-1996                     | Richardson-Vicks Inc                               | All   |
|                        | 17                    | US- 6,284,234 B1                         | 09-04-2001                     | Johnson & Johnson                                  | All   |
|                        | 18                    | US- 5,552,135 B1                         | 09-03-1996                     | Estee Lauder                                       | All   |
| Ull                    | 19                    | US- 5,356,811 B1                         | 10-18-1994                     | Coats  | All   |

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| FOREIGN PATENT DOCUMENTS |                       |   |                                |  |   |                |
|--------------------------|-----------------------|---|--------------------------------|--|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|                          |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |  |   |                |
|                          | 1                     | JP-161,881  |                                |  | All   |                |
| Ull                      | 2                     | DE-3642794  | 06-19-1987                     | Kao Corp.  | All   |                |
|                          | 3                     | WO-06103  | 06-14-1990                     | The Bunn's Company                                 | All   |                |
|                          | 4                     | EP-535372 A1  | 04-07-1993                     | Siemens  | All   |                |
|                          | 5                     | EP-619999 A2  | 10-19-1994                     | Tioxide Specialities Ltd                           | All   |                |
| Ull                      | 6                     | EP-628303 A1  | 12-14-1994                     | Tioxide Specialities Ltd                           | All   |                |

|                    |  |                 |         |
|--------------------|--|-----------------|---------|
| Examiner Signature |  | Date Considered | 3/21/04 |
|--------------------|--|-----------------|---------|

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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| Application Number     | 09/682,249       |
| Filing Date            | 08/09/2001       |
| First Named Inventor   | GRUNE, GUERRY L. |
| Art Unit               | 1616             |
| Examiner Name          | Marina Lamm      |
| Attorney Docket Number | 01 SNELK 01      |

Sheet 2 of 3**U. S. PATENT DOCUMENTS**

| Examiner Initials <sup>1</sup> | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------------------|-----------------------|--|--------------------------------|--|---|
|                                |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| u                              | 20                    | US- 6,083,508                            | 07-04-2000                     | Avalos   | All   |
|                                | 21                    | US- 5,565,591                            | 10-15-1996                     | SunSmart   | All   |
|                                | 22                    | US- 5,573,754                            | 11-12-1996                     | Richardson-Vicks                                   | All   |
|                                | 23                    | US- 5,573,755                            | 11-12-1996                     | Chesebrough-Pond's                                 | All   |
|                                | 24                    | US- 5,622,690                            | 04-22-1997                     | Nurture  | All   |
|                                | 25                    | US- 5,643,554                            | 10-15-1996                     | Dusa Pharmaceuticals                               | All   |
|                                | 26                    | US- 5,733,531                            | 03-31-1998                     | SunSmart   | All   |
|                                | 27                    | US- 5,741,924                            | 04-21-1998                     | Biophysics   | All   |
|                                | 28                    | US- 5,747,011                            | 05-05-1998                     | Schering-Plough Healthcare                         | All   |
| u                              | 29                    | US- 5,914,102                            | 06-22-1999                     | Schering-Plough Healthcare                         | All   |
|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |
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|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |
|                                |                       | US-                                      |                                |  |   |

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| u                              | 7                     | WO-1993/11742   | 06-24-1993                     | The Boots Company                                  | All   |                |
| u                              | 8                     | WO-1999/11236   | 03-11-1999                     | Baxter Laboratories                                | All   |                |
| u                              | 9                     | EP-0834301 A1   | 04-08-1998                     | Boehringer Ingelheim Ltd.                          | All   |                |
|                                |                       |   |                                |  |   |                |
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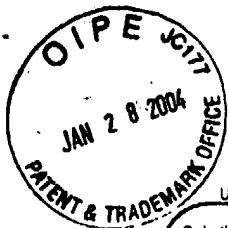
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5/21/04

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|   |                        | First Named Inventor     | GRUNE, GUERRY L. |
|   |                        | Art Unit                 | 1616             |
| Examiner Name   | Marina Lamn            |                          |                  |
| Sheet 3 of 3  | Attorney Docket Number | 015NBLK/01               |                  |

| NON PATENT LITERATURE DOCUMENTS |                       |   |                |
|---------------------------------|-----------------------|---|----------------|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
| ull                             | 1                     | MARGARET SCHLUMPH, "In Vitro and in Vivo Estrogenicity of UV Screens", Environmental Health Perspectives, Vol. 109, No. 3, March 2001   |                |
| ull                             | 2                     | MICHAEL WARHURST, "Introduction to Hormone Disrupting Chemicals" at <http://website.lineone.net/%7Emwarhurst>, 10/03/2001, Internet   |                |
| no author<br>no title           |                       | 3 <del>Article published in DCI in September 1992 by Tioxide Specialities Ltd.</del>  |                |
|                                 |                       | 4 <del>Article published in Cosmetics and Toiletries, Vol 107, October 1992</del>   |                |
| ull                             | 5                     | Tioxide Co. Brochure published in March 15, 1994 found at: <a href="http://www.psrc.usm.edu/macrog/coatings/tio2.htm">http://www.psrc.usm.edu/macrog/coatings/tio2.htm</a> as of 10/11/2001   |                |
| ull                             | 6                     | MARGARET SCHLUMPH, "Estrogen Active UV Screens", SOFW-Journal, Vol: 127, 01/07/2001   |                |
| ull                             | 7                     | MARC S. REISCH, "Spotlight on Sunscreens", C & EN, 12/03/2001   |                |
| ull                             | 8                     | Environmental Protection Agency Endocrine Disruptor Screening Program report to Congress, August 2000, Internet: <a href="http://epa.gov/scipoly/oscpendo/index.htm">http://epa.gov/scipoly/oscpendo/index.htm</a> , 08/07/2002                                 |                |
| no author<br>no title           |                       | 9 <del><a href="http://www.nihs.go.jp/hse/environ/illiepatable/htm">http://www.nihs.go.jp/hse/environ/illiepatable/htm</a>, 08/06/2002</del>  |                |
|                                 |                       | 10 <del><a href="http://europa.eu.int/comm/foot/fs/sc/scdp/out145_en.html">http://europa.eu.int/comm/foot/fs/sc/scdp/out145_en.html</a>, 10/03/2001</del>   |                |

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